

## **ATTACHMENT E**

### **SMAQMD Rule 201 Authority to Construct**

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## AUTHORITY TO CONSTRUCT

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**A/C NO.:** 21097**ISSUED BY:** Bruce Nixon, P.E.**DATE ISSUED:** November 20, 2008**DATE EXPIRES:** November 20, 2010**ISSUED TO:** Kiefer Landfill  
Department Of Waste Management and Recycling  
Municipal Services Agency  
County Of Sacramento**LOCATION:** 12701 Kiefer Boulevard, Sacramento**DESCRIPTION:** Air Pollution Control Landfill Gas Flare No. 2, Manufacturer and Model not specified at this time, enclosed type, 4,000 ft<sup>3</sup> landfill gas/minute combustion capacity, 120 MMBTU/hour (at 500 BTU/ft<sup>3</sup> of landfill gas), controlling landfill gas emissions

### Authority to Construct Conditions

#### START-UP

S1. Upon installation of the equipment authorized in this Authority to Construct, the permittee shall contact the Sacramento Metropolitan Air Quality Management District (SMAQMD) at (916) 874-4800 to schedule a start-up inspection.

S2. This Authority to Construct shall serve as a temporary Permit to Operate provided that:

- A. The SMAQMD has been notified for a start-up inspection.
- B. The equipment installed matches the equipment authorized in the Authority to Construct.
- C. The equipment is operated in compliance with all conditions listed within the Authority to Construct.

S3. An emissions test as described in Condition No. 27 shall be conducted within 60 days of start-up

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### GENERAL

1. The equipment shall be properly maintained.
2. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials, shall be permitted:
  - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Authority to Construct, and
  - B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Authority to Construct, and
  - C. To inspect any equipment, operation or method required in this Authority to Construct, and
  - D. To sample emissions from the source or require samples to be taken.
3. This Authority to Construct does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the Rules and Regulations of the SMAQMD.
4. A legible copy of this Authority to Construct shall be maintained on the premises with the equipment.

### EMISSION LIMITATION REQUIREMENTS

5. Landfill Gas Flare No. 2 shall not discharge into the atmosphere any visible air contaminants other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which are as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.
6. Emissions from Landfill Gas Flare No. 2 shall not exceed the following:

Pollutant	Maximum Allowable Emissions
ROC (A)	A. 2% of inlet NMOC (equivalent to a 98% NMOC destruction efficiency), or B. 20 ppmvd at 3% O <sub>2</sub> measured as hexane
NO <sub>x</sub> (B)	25 lb/MMft <sup>3</sup> of landfill gas fuel [equivalent to 0.05 lb/MMBTU at 500 BTU/ft <sup>3</sup> of LFG]
SO <sub>2</sub> (C) (D)	20 lb/MMft <sup>3</sup> of landfill gas fuel [equivalent to 0.04 lb/MMBTU at 500 BTU/ft <sup>3</sup> of LFG]

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Pollutant	Maximum Allowable Emissions
	[equivalent to 7.4 grains of S (measured as H <sub>2</sub> S)/100 ft <sup>3</sup> of LFG combusted]
PM <sub>10</sub> (C)	7.35 lb/MMft <sup>3</sup> of landfill gas fuel [equivalent to 0.0147lb/MMBTU at 500 BTU/ft <sup>3</sup> of LFG]
CO (B)	75 lb/MMft <sup>3</sup> of landfill gas fuel [equivalent to 0.15 lb/MMBTU at 500 BTU/ft <sup>3</sup> of LFG]

- (A) U.S. EPA New Source Performance Standard (NSPS) requirement (40 CFR 60 Subpart WWW) and U.S. EPA National Emission Standard for Hazardous Pollutants (NESHAP) requirement (40 CFR 63 Subpart AAAA).
- (B) Permittee requested emission limit that is more restrictive than the SMAQMD BACT emission limit.
- (C) SMAQMD BACT determination.
- (D) The permittee shall submit an Authority to Construct application to the SMAQMD if source testing indicates that SO<sub>2</sub> mass emissions exceed the permit limit. The Authority to Construct application shall be submitted within 45 days of the SMAQMD receiving source test results indicating that SO<sub>2</sub> mass emissions exceed the permit limit. Exceedance of the permit limit shall be a permit violation only if an Authority to Construct application is not received within the 45 day period.

7. Emissions from Landfill Gas Flare No. 2 shall not exceed the following:

Pollutant	Emission Factor lb/MMft <sup>3</sup>	Maximum Allowable Emissions (F) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	13.7 (A)	7,102	7,181	7,260	7,260
NO <sub>x</sub>	25 (B)	12,960	13,104	13,248	13,248
SO <sub>2</sub>	20 (C)	10,368	10,483	10,598	10,598
PM <sub>10</sub>	7.35 (D)	3,810	3,853	3,895	3,895
CO	75 (E)	38,880	39,312	39,744	39,744

- (A) Emission factor for ROC is based on -

- i. a landfill gas NMOC concentration of 7,857 ppmv (as hexane),  
[established from highest concentration of 17 co-disposal sites, average is 1,849.8 ppm, Reference: Table 3-5, *Air Emissions from Municipal Solid Waste Landfills - Background Information for Proposed Standards and Guidelines*, Office of Air Quality Planning and Standards, Research Triangle Park, U.S. Environmental Protection Agency, EPA-450/3-90-011a, March 1991]

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- ii. 39% of total NMOC is ROC,
  - iii. MW of NMOC (as hexane) is 86.18 and
  - iv. 98% destruction efficiency.
- (B) Emission factor for NO<sub>x</sub> is based on permittee's request of 0.05 lb/MMBTU (equivalent to 25 lb/MMft<sup>3</sup> at 500 BTU/ft<sup>3</sup> of LFG).
- (C) Emission factor for SO<sub>2</sub> is based on a SMAQMD BACT determination of 0.04 lb/MMBTU (equivalent to 20 lb/MMft<sup>3</sup> at 500 BTU/ft<sup>3</sup> of LFG).
- (D) Emission factor for PM<sub>10</sub> is based on a SMAQMD BACT determination of 0.0147 lb/MMBTU (equivalent to 7.35 lb/MMft<sup>3</sup> at 500 BTU/ft<sup>3</sup> of LFG).
- (E) Emission factor for CO based on permittee's request of 0.15 lb/MMBTU (equivalent to 75 lb/MMft<sup>3</sup> at 500 BTU/ft<sup>3</sup> of LFG).
- (F) Mass emissions are based on 4,000 ft<sup>3</sup>/min. LFG combustion rate, 500 BTU/ft<sup>3</sup> of LFG, 24 hours/day and the number of days in each calendar quarter.
8. Combined emissions from the Landfill Gas Air Pollution Control System equipment (2 flares and 5 IC engines) shall not exceed the following:

P/O 17331 IC engine No. 1 and  
 P/O 17332 IC engine No. 2 and  
 P/O 17333 IC engine No. 3 and  
 P/O 19705 IC engine No. 4 and  
 P/O 16151 IC engine No. 5 and  
 P/O 19704 Landfill Gas Flare No. 1 and  
 A/C 21097 Landfill Gas Flare No. 2

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
ROC	30,847	31,190	31,511	31,511	62.5
NO <sub>x</sub>	43,151	43,631	44,110	44,110	87.5
SO <sub>2</sub>	44,698	45,195	45,715	45,715	90.7
PM <sub>10</sub>	13,350	13,501	13,648	13,648	27.1
CO	219,798	222,258	224,715	224,715	445.7

### EQUIPMENT OPERATION REQUIREMENTS

9. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, shall be installed at the inlet landfill gas line to Landfill Gas Flare No. 2. The sampling port shall be located so that an accurate volume flow measurement can be performed.
10. Landfill Gas Flare No. 2 exhaust sample ports shall be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.

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11. A landfill gas flowrate measuring device that provides a measurement of landfill gas flow to Landfill Gas Flare No. 2 shall be installed, calibrated and maintained.
  - A. The landfill gas flowrate measuring device shall record the flow to Landfill Gas Flare No. 2 at least every 15 minutes.
  - B. *The permittee shall submit to the SMAQMD Air Pollution Control Officer, 60 days prior to initial operation of Landfill Gas Flare No. 2, a description of the landfill gas flowrate measuring device calibration procedure and schedule of calibration.*
12. Landfill Gas Flare No. 2 shall be equipped with a temperature monitoring device.
  - A. The thermocouple used to measure Landfill Gas Flare No. 2 combustion temperature shall be located at a distance that is greater than the distance equivalent to 0.6 seconds, at the maximum flow rate, downstream of the burner.
  - B. *The permittee shall submit to the SMAQMD Air Pollution Control Officer, 60 days prior to initial operation of Landfill Gas Flare No. 2, a description of the location of the thermocouple that verifies the distance downstream of the burner.*
  - C. The temperature monitoring device shall be equipped with a continuous recorder.
  - D. The temperature monitoring device shall have an accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  degrees C, whichever is greater.
  - E. The temperature monitoring device is not precluded from expressing measurements in degrees Fahrenheit provided an equivalent accuracy is met.
  - F. *The permittee shall submit to the SMAQMD Air Pollution Control Officer, 60 days prior to initial operation of Landfill Gas Flare No. 2, a description of the temperature monitoring device calibration procedure and schedule of calibration.*
13. Landfill Gas Flare No. 2 shall operate at a minimum combustion zone temperature no less than the 3-hour average temperature (measured by the thermocouple specified in Condition No. 12) as determined during the most recent complying source test minus 28 degrees C (50 degrees F).

(The data from the most recent source test is summarized in Attachment A indicating the 3-hour average temperature measured by the thermocouple required by Condition No. 12.)
14. The landfill gas condensate injection rate for Landfill Gas Flare No. 2 shall not exceed 4 gallons/minute.

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15. The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan as specified in 40 CFR 63.6(e). *The permittee shall submit the SSM plan to the SMAQMD Air Pollution Control Officer at least 60 days prior to initial operation of Landfill Gas Flare No. 2.*
16. The following records shall be continuously maintained on site for the most recent 5 year period, except as noted, and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and annual records shall be made available for inspection within 30 days of the end of the reporting period.

Frequency	Information to be recorded
At all times	<p>A. The following information measured during the initial performance test shall be maintained for the life of LFG Flare No. 2. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. <b>[40 CFR 60.758(b)]</b></p> <p>i. LFG Flare No. 2 average combustion temperature measured at least every 15 minutes and averaged over the same time period as the performance test. <b>[40 CFR 60.758(b)(2)(i)]</b></p> <p>ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by LFG Flare No. 2. <b>[40 CFR 60.758(b)(2)(ii)]</b></p> <p>B. Continuously monitored landfill gas flowrate to LFG Flare No. 2 as required by Condition No. 11.</p> <p>C. Continuously monitored combustion temperature of LFG Flare No. 2 as required by Condition No. 12.</p> <p>D. All 3 hour periods of operation during which LFG Flare No. 2 average combustion temperature was below the limit established in Condition No. 13. <b>[40 CFR 60.758(c)(1)(i)]</b></p> <p>E. Records of calibration reports for the landfill gas flowrate monitoring device.</p> <p>F. Records of calibration reports for the temperature monitoring device.</p>

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Frequency	Information to be recorded
	G. Records of source test plans and results that verify LFG Flare No. 2 compliance with the emission limits in Condition No. 6.
Quarterly	H. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 LFG flares) with the maximum allowable emissions in Condition No. 8. (lb/quarter)
Annually	I. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 LFG flares) with the maximum allowable emissions in Condition No. 8. (tons/year)

17. A written report shall be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and shall contain the following information.

Frequency	Information to be submitted
Annually by: January 31 for the previous calendar year	<p>A. All 3 hour periods of operation during which LFG Flare No. 2 average combustion temperature was below the limit established in Condition No. 13. <b>[40 CFR 60.758(c)(1)(i)]</b></p> <p>B. Description and duration of all periods when LFG Flare No. 2 was not operating for a period exceeding 1 hour and length of time LFG Flare No. 2 was not operating. <b>[40 CFR 60.757(f)(3)]</b></p>

18. Startup, Shutdown and Malfunction (SSM) Immediate Report

A written SSM Immediate Report shall be submitted to the SMAQMD Air Pollution Control Officer as indicated and shall contain the following information.

**[40 CFR 63.1955(b), 40 CFR 63.1980(b), 40 CFR 63.10(d)(5)(ii)]**

Frequency	Information to be submitted
<u>Only required if a SSM event occurred.</u>	A. If actions taken during a SSM event <u>are not consistent</u> with the procedures specified in the SSM Plan, the permittee shall:
Within 2 working days →	<p>i. Report to the SMAQMD Air Pollution Control Officer, by telephone call or facsimile (fax), within 2 working days after commencing actions <u>not consistent</u> with the SSM Plan.</p>



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Frequency	Information to be submitted
Within 7 working days →	<p>ii. Follow with a letter to the SMAQMD Air Pollution Control Officer within 7 working days after the end of the SSM event that:</p> <p>(a) Contains the name, title and signature of the responsible official who is certifying the accuracy of the report.</p> <p>(b) Explains the circumstances of the event.</p> <p>(c) Explains the reasons for not following the SSM Plan.</p> <p>(d) Explains whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.</p>

### 19. Startup, Shutdown and Malfunction (SSM) Periodic Report

A written SSM Periodic Report shall be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and shall contain the following information.

**[40 CFR 63.1955(b), 40 CFR 63.1980(b), 40 CFR 63.10(d)(5)(i)]**

Frequency	Information to be submitted
<p><u>Only required if a SSM event occurred within a reporting period.</u></p> <p>Submit by - January 31 July 30</p> <p>for the reporting periods - January 01 - June 30 July 01 - December 31</p>	<p>A. If actions taken during a SSM event <u>are consistent</u> with the procedures specified in the SSM Plan, the permittee shall state such information in a SSM Report.</p> <p>B. The SSM Report shall contain:</p> <p>i. Number, duration and a brief description of each SSM event.</p> <p>ii. A letter containing the name, title and signature of the responsible official who is certifying the accuracy of the report.</p>

20. The permittee shall maintain files of all required SSM information specified below (including all reports and notifications), recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years

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of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks or on microfiche.

**[40 CFR 63.10(b) and (c)]**

Frequency	Information to be recorded
At all times	<p>A. The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards.</p> <p>B. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment.</p> <p>C. All required maintenance performed on the air pollution control and monitoring equipment.</p> <p>D. Actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's SSM Plan.</p> <p>E. All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan.</p> <p>i. The information needed to demonstrate conformance with the SSM Plan may be recorded using a "checklist" or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events.</p> <p>F. Each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative (including out-of-control periods).</p> <p>G. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the</p>

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Frequency	Information to be recorded
	<p>source is required to report).</p> <p>H. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations.</p> <p>I. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations.</p> <p>J. All CMS calibration checks.</p> <p>K. All adjustments and maintenance performed on CMS.</p> <p>L. All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.</p> <p>M. All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods).</p> <p>N. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks.</p> <p>O. The date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7).</p> <p>P. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source.</p> <p>Q. The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source.</p> <p>R. The nature and cause of any malfunction (if known).</p> <p>S. The corrective action taken or preventive measures adopted.</p> <p>T. The nature of the repairs or adjustments to the CMS that was inoperative or out of control;</p> <p>U. The total process operating time during the reporting period.</p>

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Frequency	Information to be recorded
	V. All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR 63.8(d).

### EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

#### 21. For SMAQMD Rule 202 New Source Review purposes:

The permittee shall surrender (and has surrendered - See Condition No. 24) NO<sub>x</sub> ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NO<sub>x</sub> emissions:

Equipment	Amount of NO <sub>x</sub> Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 20797 IC engine No. 1 2. P/O 20798 IC engine No. 2 3. P/O 20799 IC engine No. 3 4. P/O 20800 IC engine No. 4 5. P/O 20801 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. A/C 21097 Landfill Gas Flare No. 2	20,484	20,711	20,938	20,938

#### 22. For U.S. EPA Pollution Control Project purposes:

The permittee shall surrender (and has surrendered - See Condition No. 25) NO<sub>x</sub> ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NO<sub>x</sub> emissions:

Equipment	Amount of NO <sub>x</sub> Emissions for which ERCs are to be Provided (A) (B) tons/year
Landfill Gas Air Pollution Control system consisting of: 1. P/O 20797 IC engine No. 1 2. P/O 20798 IC engine No. 2 3. P/O 20799 IC engine No. 3 4. P/O 20800 IC engine No. 4 5. P/O 20801 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. A/C 21097 Landfill Gas Flare No. 2	87.5

(A) The requirement for these ERCs is a result of U.S. EPA's Pollution Control Project

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offsetting policy:

- i. U.S. EPA excludes the project from Federal New Source Review rules if it qualifies as a Pollution Control Project.
- ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
- iii. The project is environmentally beneficial if all NOx emissions from the project are offset.

(B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 21.

23. The permittee shall surrender (and has surrendered - See Condition No. 26) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 20797 IC engine No. 1 2. P/O 20798 IC engine No. 2 3. P/O 20799 IC engine No. 3 4. P/O 20800 IC engine No. 4 5. P/O 20801 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. A/C 21097 Landfill Gas Flare No. 2	5,799	5,909	6,016	6,016

24. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 21:

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98-00470 Rancho Seco ICE NOx	1,448	1,448	1,448	1,448	N/A	1.3:1	1,114	1,114	1,114	1,114
98-00472 Rancho Seco ICE NOx	1,160	1,160	1,160	1,160	N/A	1.3:1	892	892	892	892

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Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98-00474 Rancho Seco ICE NOx	2,250	2,250	2,250	2,250	N/A	1.3:1	1,731	1,731	1,731	1,731
98-00476 Rancho Seco ICE NOx	2,727	2,727	2,727	2,727	N/A	1.3:1	2,098	2,098	2,098	2,098
98-00478 Rancho Seco Boiler NOx	12,089	4,193	719	4,529	N/A	1.3:1	9,299	3,225	553	3,484
EC-0002 Yolo-Solano AQMD Spreckles Sugar NOx	0	4,884	2,719	3,539	N/A	1.5:1	0	3,256	1,813	2,359
EC-0004 Yolo-Solano AQMD Spreckles Sugar NOx	0	0	6,175	958	N/A	1.5:1	0	0	4,117	639
98-00004 Placer County APCD Formica Corporation ROC	16,050	25,185	25,863	25,865	2:1	1.5:1	5,350	8,395	8,621	8,622
Total							20,484	20,711	20,938	20,938

25. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 22:

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
99-00649 Poppy Ridge NOx	4,089	6,029	6,132	4,259	N/A	1:1	10.25
01-00752 Poppy Ridge NOx	522	391	36	457	N/A	1:1	0.70

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Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
01-00752 Poppy Ridge NOx	715	715	715	715	N/A	1:1	1.43
98-00470 Rancho Seco ICE NOx	1,448	1,448	1,448	1,448	N/A	1:1	2.90
98-00472 Rancho Seco ICE NOx	1,160	1,160	1,160	1,160	N/A	1:1	2.32
98-00474 Rancho Seco ICE NOx	2,250	2,250	2,250	2,250	N/A	1:1	4.50
98-00476 Rancho Seco ICE NOx	2,727	2,727	2,727	2,727	N/A	1:1	5.45
98-00478 Rancho Seco Boiler NOx	12,089	4,193	719	4,529	N/A	1:1	10.77
EC-0002 Yolo-Solano AQMD Spreckles Sugar NOx	0	4,884	2,719	3,539	N/A	1:1	5.57
EC-0004 Yolo-Solano AQMD Spreckles Sugar NOx	0	0	6,175	958	N/A	1:1	3.57
98-00004 Placer APCD Formica Corporation ROC	16,848	35,070	43,089	34,296	2:1	1:1	32.33

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Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
P07-1005 Essential Public Services Account SMAQMD Priority Reserve Bank <b>Lease expires on: 01/01/2012</b> (A) NOx	4,588	2,890	3,252	4,704	N/A	1:1	7.72
Total							87.5

(A) ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:

- i. This Permit to Operate shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
- ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify this Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
  - (a) The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
  - (b) ERCs shall be required in an amount which is the larger of:
    - (1) The originally specified amount, or
    - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
- iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with this Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.



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26. The following PM10 ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 23:

Emission Reduction Credit Certificate No.	Face Value of PM10 ERC Certificates Surrendered				Offset Ratio	Value Applied to the Project PM10 Emission Liability lb/quarter			
	lb/quarter					Qtr 1	Qtr 2	Qtr 3	Qtr 4
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
2005-03 Placer County APCD Lincoln Brand Feeds	4,329	4,446	4,558.5	4,558.5	1.5:1	2,886	2,964	3,039	3,039
2005-06 Placer County APCD Lincoln Brand Feeds	2,425	2,308	2,195.5	2,195.5	1.5:1	1,616.7	1,538.7	1,463.7	1,463.7
C053003 SMAQMD Community Bank Lease expires on: 07/01/2035 (A)	1,296.3	1,406.3	1,513.3	1,513.3	1:1	1,296.3	1,406.3	1,513.3	1,513.3
Total						5,799	5,909	6,016	6,016

(A) ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:

- i. This Permit to Operate shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
- ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify this Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
  - (a) The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
  - (b) ERCs shall be required in an amount which is the larger of:
    - (1) The originally specified amount, or
    - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
- iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with this Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

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### EMISSION TESTING REQUIREMENTS

27. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 6, 7, 8 and 13:
- A. Submit a source test plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days prior to the source test date.
  - B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date if the date has changed from that approved in the Source Test Plan.
  - C. Submit the source test report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
  - D. The source test shall be conducted at the exhaust of the landfill gas flare (except for hydrogen sulfide test which shall use the inlet) and shall include a test for:
    - i. Either:
      - a. NMOC destruction efficiency, or
      - b. Total NMOC (ppmvd at 3% O<sub>2</sub> measured as hexane).
    - ii. Nitrogen oxides, NO<sub>x</sub>.
    - iii. Carbon monoxide, CO.
    - iv. Particulate Matter, PM<sub>10</sub>.
    - v. Hydrogen sulfide, H<sub>2</sub>S (in grains S (measured as H<sub>2</sub>S)/100 ft<sup>3</sup> of LFG at the inlet).
    - vi. Combustion temperature (as measured by the thermocouple required by Condition No. 12).
    - vii. Landfill gas flow rate.
  - E. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for PM<sub>10</sub> if, in the SMAQMD Air Pollution Control Officer's sole judgment, previous source test results indicate that an adequate compliance margin has been maintained.
  - F. Compliance with the NO<sub>x</sub> emission limit shall be determined using one of the following source test methods:
    - i. CARB Method 100
    - ii. U.S. EPA Method 7E or
    - iii. Any other method approved by the U.S. EPA and the SMAQMD Air Pollution Control Officer.

### RACT DETERMINATION REQUIREMENTS

28. This Authority to Construct incorporates a Reasonably Available Control Technology (RACT) determination as required by the federal Clean Air Act (as amended 1990) Sections 182(b)(2) and 182(f).

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29. The expiration date shown on this Authority to Construct is for State of California purposes. For federal enforcement purposes the RACT provisions of this permit that are approved by the U.S. EPA shall remain in effect as part of the State of California Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. EPA.

Your application for this air quality Authority to Construct was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD Rule No.</u>	<u>Rule Title</u>
201	General Permit Requirements
202	New Source Review
301	Permit Fees
401	Ringelmann Chart
402	Nuisance
406	Specific Contaminants
420	Sulfur Content of Fuels
801 and U.S. EPA NSPS	40 CFR Part 60 Subpart WWW New Source Performance Standards for Municipal Solid Waste Landfills
U.S. EPA NESHAP	40 CFR 63 Subpart AAAA National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste Landfills

In addition, the conditions on this Authority to Construct may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD Rulebook or contact the SMAQMD for assistance.

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### ATTACHMENT A

Landfill Gas Flare No. 2 Combustion Temperature  
Recorded During Most Recent Complying Source Test  
(see Condition No. 13)

Date of Source Test	3-Hour Average Combustion Temperature Recorded During Source Test  degrees F	Minimum 3-Hour Combustion Temperature Limit to Demonstrate Continuing Compliance  degrees F
XX-XX-20XX	XXXX	XXXX

Historical Data ↓		